a control loop for controlling the temperatures of said plurality of laser diodes according to an output from said temperature sensor and temperature control conditions for said laser diodes to thereby control the oscillation wavelengths of said plurality of laser diodes; and

means for compensating the temperature control conditions for said laser diodes other than the reference laser diode, according to a change in temperature control condition for said reference laser diode, wherein the reference laser diode is operated at temperatures lower than or equal to an ordinary temperature.

2. (AS ORIGINAL) A light source device according to claim 1, wherein the oscillation wavelengths of said plurality of laser diodes are different from each other, and said plurality of laser diodes are selectively driven.

3. (AS ORIGINAL) A light source device according to claim 1, wherein said temperature sensor comprises a thermistor.

B1 cont'd

4. (AS ORIGINAL) A light source device according to claim 1, wherein said change in said temperature control condition for said reference laser diode comprises a result of comparison between an initial set temperature and a latest set temperature, whereby a deterioration of said temperature sensor reflects the compensation of said temperature control conditions of said laser diodes other than said reference laser diode.

5. (AS ORIGINAL) A light source device according to claim 4, wherein said reference laser diode is driven so as to become lower in temperature than said laser diodes other than said reference laser diode.

6. (AS ORIGINAL) A light source device according to claim 1, wherein said plurality of laser diodes are arranged in an array, and said reference laser diode is positioned at an end of said array.

7. (AS ORIGINAL) A light source device according to claim 1, wherein said plurality of laser diodes are arranged in an array, and said temperature sensor is positioned near the center of said array.

8. (AS ORIGINAL) A light source device according to claim 1, wherein said control loop comprises an optical filter optically coupled to said plurality of laser diodes and having a transmittance substantially periodically changing with wavelength, and means for controlling the temperatures of said plurality of laser diodes so that the intensity of transmitted light through said optical filter becomes constant.

9. (AS TWICE AMENDED) A wavelength control device for a light source device having a plurality of laser diodes including a reference laser diode, comprising:

a temperature sensor provided in the vicinity of said plurality of laser diodes;

a control loop for controlling the temperatures of said plurality of laser diodes according to an output from said temperature sensor and temperature control conditions for said laser diodes to thereby control the oscillation wavelengths of said plurality of laser diodes; and

means for compensating the temperature control conditions for said laser diodes other than the reference laser diode, according to a change in temperature control condition for said reference laser diode wherein the reference laser diode is operated at temperatures lower than or equal to an ordinary temperature.

B' cont'd

10. (AS ORIGINAL) A wavelength control device according to claim 9, wherein said temperature sensor comprises a thermistor.

11. (AS ORIGINAL) A wavelength control device according to claim 9, wherein said change in said temperature control condition for said reference laser diode comprises a result of comparison between an initial set temperature and a latest set temperature, whereby a deterioration of said temperature sensor reflects the compensation of said temperature control conditions of said laser diodes other than said reference laser diode.

12. (AS ORIGINAL) A wavelength control device according to claim 9, wherein said control loop comprises an optical filter optically coupled to said plurality of laser diodes and having a transmittance substantially periodically changing with wavelength, and means for controlling the temperatures of said plurality of laser diodes so that the intensity of transmitted light through said optical filter becomes constant.

13. (AS TWICE AMENDED) A light source device comprising:

a plurality of laser diodes comprising a reference laser diode;

a first temperature sensor provided in the vicinity of said plurality of laser diodes;

a second temperature sensor provided at a position becoming lower in temperature than a position where said first temperature sensor is provided when driving said plurality of laser diodes;

a control loop for controlling the temperatures of said plurality of laser diodes according to an output from said first temperature sensor and a control signal to thereby control the oscillation wavelengths of said plurality of laser diodes; and

means for compensating a detected temperature by said first temperature sensor according to a detected temperature by said second temperature sensor and according to a change in temperature control condition for the reference laser diode and outputting the control signal based on the detected temperatures and the temperature control conditions, wherein the reference laser diode is operated at temperatures lower than or equal to an ordinary temperature.

B' cont'd

14. (AS ORIGINAL) A light source device according to claim 13, wherein the oscillation wavelengths of said plurality of laser diodes are different from each other, and said plurality of laser diodes are selectively driven.

15. (AS ORIGINAL) A light source device according to claim 13, wherein each of said first and second temperature sensors comprises a thermistor.

16. (AS ORIGINAL) A light source device according to claim 13, wherein said control loop comprises an optical filter optically coupled to said plurality of laser diodes and having a transmittance substantially periodically changing with wavelength, and means for controlling the temperatures of said plurality of laser diodes so that the intensity of transmitted light through said optical filter becomes constant.

17. (AS ORIGINAL) A light source device according to claim 16, wherein:

said second temperature sensor is provided in the vicinity of said optical filter;

said light source device further comprising means for controlling the temperature of said optical filter according to an output from said second temperature sensor so that the temperature of said optical filter is maintained constant.

18. (AS TWICE AMENDED) A wavelength control device for a light source device having a plurality of laser diodes including a reference laser diode, comprising:

a first temperature sensor provided in the vicinity of said plurality of laser diodes;

a second temperature sensor provided at a position becoming lower in temperature than a position where said first temperature sensor is provided when driving said plurality of laser diodes;

a control loop for controlling the temperatures of said plurality of laser diodes according to an output from said first temperature sensor and a control signal to thereby control the oscillation wavelengths of said plurality of laser diodes; and

means for compensating a detected temperature by said first temperature sensor according to a detected temperature by said second temperature sensor and according to a change in temperature control condition for the reference laser diode and outputting the control signal based on the detected temperatures and the temperature control condition, wherein the reference laser diode is operated at temperatures lower than or equal to an ordinary temperature.

B' cont'd

19. (AS ORIGINAL) A wavelength control device according to claim 18, wherein each of said first and second temperature sensors comprises a thermistor.

20. (AS ORIGINAL) A wavelength control device according to claim 18, wherein said control loop comprises an optical filter optically coupled to said plurality of laser diodes and having a transmittance substantially periodically changing with wavelength, and means for controlling the temperatures of said plurality of laser diodes so that the intensity of transmitted light through said optical filter becomes constant.

21. (AS ONCE AMENDED) A light source device comprising:

a plurality of laser diodes comprising a reference laser diode;

a temperature sensor provided in the vicinity of said plurality of laser diodes;

a control loop controlling the temperatures of said plurality of laser diodes according to an output from said temperature sensor and temperature control conditions for the laser diodes to thereby control the oscillation wavelengths of said plurality of laser diodes; and

a compensator compensating the temperature control conditions for said laser diodes other than the reference laser diode, according to a change in temperature control condition for said reference laser diode, wherein the reference laser diode is operated at temperatures lower than or equal to an ordinary temperature.

22. (AS ONCE AMENDED) A wavelength control device for a light source device having a plurality of laser diodes including a reference laser diode, comprising:

a temperature sensor provided in the vicinity of said plurality of laser diodes;

a control loop controlling the temperatures of said plurality of laser diodes according to an output from said temperature sensor and temperature control conditions for the laser diodes to thereby control the oscillation wavelengths of said plurality of laser diodes; and

a compensator compensating the temperature control conditions for said laser diodes other than the reference laser diode, according to a change in temperature control condition for said reference laser diode wherein the reference laser diode is operated at temperatures lower than or equal to an ordinary temperature.

B' cont'd

23. (AS ONCE AMENDED) A light source device comprising:

a plurality of laser diodes comprising a reference laser diode;

a first temperature sensor provided in the vicinity of said plurality of laser diodes;

a second temperature sensor provided at a position becoming lower in temperature than a position where said first temperature sensor is provided when driving said plurality of laser diodes;

a control loop controlling the temperatures of said plurality of laser diodes according to an output from said first temperature sensor and a control signal to thereby control the oscillation wavelengths of said plurality of laser diodes; and

a compensator compensating a detected temperature by said first temperature sensor according to a detected temperature by said second temperature sensor and according to a change in temperature control condition for the reference laser diode and outputting the control signal based on the detected temperatures and the temperature control condition, wherein the

reference laser diode is operated at temperatures lower than or equal to an ordinary temperature.

24. (AS ONCE AMENDED) A wavelength control device for a light source device having a plurality of laser diodes including a reference laser diode, comprising:

a first temperature sensor provided in the vicinity of said plurality of laser diodes;

a second temperature sensor provided at a position becoming lower in temperature than a position where said first temperature sensor is provided when driving said plurality of laser diodes;

B1 contd

a control loop controlling the temperatures of said plurality of laser diodes according to an output from said first temperature sensor and a control signal to thereby control the oscillation wavelengths of said plurality of laser diodes; and

a compensator compensating a detected temperature by said first temperature sensor according to a detected temperature by said second temperature sensor and according to a change in temperature control condition for the reference laser diode and outputting the control signal based on the detected temperatures and the temperature control circuit, wherein the reference laser diode is operated at temperatures lower than or equal to an ordinary temperature.

## REMARKS

In the final Office Action mailed March 26, 2003, claims 9, 10, 11, 12, 18, 19, 20, 21, and 23 were objected to under 37 CFR 1.75 as being a substantial duplicates of claims 1, 3, 4, 8, 13, 15, 16, 22, and 24, respectively; claims 1, 9, 21, and 22 were rejected under 35 USC 112, second paragraph, as being incomplete for omitting essential structural cooperative relationships of elections; claims 1, 9, 21, and 22 were rejected under 35 USC 112, second paragraph, as being indefinite; claims 1-24 were rejected under 35 USC 112, second paragraph, as being indefinite; claims 13, 18, 23, and 24 were rejected under 35 USC 112, second paragraph, as being incomplete for omitting essential structural cooperative relationships of elections; claims 1-12 were rejected under 35 USC 102(e) as being anticipated by Stayt, Jr., et al. (U.S. Patent No. 6,389,046); claim 7 under 35 USC 103(a) as being unpatentable over Stayt, Jr., et al.; claims 13-20 were rejected under 35 USC 103(a) as being